

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

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Panama

Post: Panama

Panama Continues Looking for Biofuel Opportunities

Report Categories:

Biofuels

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Report Highlights:

USDA/FAS continues to support ECPA activities throughout Central America in an effort to increase energy production from biomass.

General Information:

In an effort to continue and expand the use of biomass resources in the production of renewable energy throughout the region, Panama was the host of an Energy and Climate Partnership of the Americas (ECPA) visit in early December. As part of ECPA, the U.S. Department of Agriculture promotes policies favoring the production of renewable energy from biomass resources.

In June 2013, Post Panama hosted a Policy and Technology Forum where regional and Panamanian scientists and policymakers discussed the potentials in the different countries for the production of renewable energy from biomass resources. As a follow up to that forum, this visit to Panama was focused on the potentials of increasing ethanol production in an effort to collaborate with the implementation of Law 42 of April 20, 2011, which provides incentives for the production of ethanol, with the purpose of increasing the ethanol blend in gasoline up to 10% by 2016.

ECPA collaboration at this point will be a scientific exchange for 1-2 months, and a contribution of USD 35,000 to advance ECPA objectives.

The first part of the visit included a trip to the ethanol plant in the central provinces of Panama, where the USDA team confirmed that the ethanol plant was only able to operate 4 months of the year since Panama's climate only allows for cane sugar production during that period. Current production of ethanol is 150,000 liters per day (approximately 18M liters per year). The remaining eight months, the plant sits idle. Even though the plant will expand to double its capacity by January 2015, it will still not produce enough ethanol to meet the country's goal to produce a 10% ethanol blend by 2016. The ethanol plant only uses the sugarcane to produce ethanol. The group's expert recommendation was to add a "bolt-on" addition to the plant to give it the ability to process cellulosic material such as sugarcane bagasse, rice straw, or elephant grass using the "wet-explosion" pretreatment process developed by Washington State University. After evaluating the biochemical process and the potential cost-benefit, the option seemed very feasible. The total additional cost of the "bolt-on" was roughly estimated to be US\$ 20 - 30 million. The normal cost for such a project would be about US 50 million, but Campos de Pese already has much of the needed infrastructure in place to collect and process the biomass. Also, given the high price of gas and ethanol and the fact that Law 42 is in place, the profit potential seems very favorable.

In view of the above options and discussions, the next steps ECPA will follow will be: a) develop a biomass resources inventory of the area surrounding the ethanol plant, b) characterize one or two abundant biomass resources (probably either rice straw or elephant grass) surrounding the plant, and c) conduct enzymatic hydrolysis using said biomass. After this mapping is done, the information will be shared with a local Panamanian institution or company to conduct a more detailed feasibility study that will be paid out of a budget USDA has available for this purpose, so the project could prove to be beneficial to attract investors.

USDA/ECPA funds will be used to send one Panamanian official of the local agricultural research institute to a scientific exchange program, and as part of this activity, he will complete the initial biomass resources inventory or mapping, that will be used as an initial step of the feasibility study.

After the visit to the ethanol plant in the central provinces of Panama, the USDA/ECPA team met in Panama City with officers of the National Secretariat of Energy. The team gave a briefing to the Secretariat about the prospects of having the ethanol plant producing ethanol throughout the year with locally available biomass.

Officers of the National Secretariat of Energy were impressed with the findings of the visit and said that it is also in the best interests of the Government of Panama to be able to produce energy out of biomass sources. They expressed interest in reviewing the information after the proposed feasibility study is completed.

Photo of the ethanol plant

